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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/494,954    02/01/00    MCCURDY

R    TRW(TE)4170

EXAMINER

PM82/0709

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526 Superior Avenue  
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LUM, L

ART UNIT

PAPER NUMBER

3611

DATE MAILED:

07/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/494,954

Applicant(s)  
McCurdy, Roger

Examiner  
Lum, Lee S.

Art Unit  
3611



-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Amendment filed 4/25/01

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-22 is/are pending in the applica

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from considera

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-22 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirem

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20) ☐ Other:

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## DETAILED ACTION

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1. An Amendment was filed 4/25/01 in which most Claims were amended.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-5, 8-10, 12-15, 17-19 and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by Breed 5684701.

Breed discloses a system (Fig. 1) for protecting a vehicle occupant comprising:  
accelerometers 122,  
acoustic sensors 311-314 indicating acoustic waves propagating through the vehicle structure (inherently "omni-directional" because acoustic waves can be detected at virtually any angle),  
the sensors being part of a sensor module 120,  
occupant protection devices 110/111, and,  
a controller 130 controlling actuation of the devices.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6, 7, 11, 16, 20 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed in view of Thompson et al 6020812.

Breed does not show crush sensors located at various parts of the vehicle, while Thompson discloses crush sensors 50. It would have been obvious to one with ordinary skill in

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the art at the time at which the Breed invention was made to include Thompson's crush sensors in order to increase efficiency of the airbag system towards determination of proper actuation of the protection device.

4. Examiner notes that the following patents disclose all recited elements: Blackburn et al 6018693, 5904368, Mazur et al 5906393, Wallace et al 5964815, Musiol et al 5900677.

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5. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure: Breed 6209909, Ando 6198999, Foo et al 6036225, Kraft 6099030, Corrado et al 6026340, 5890085, Breed et al 6009970, 5848802, 5653462, Stanley 6007095, Varga et al 5943295.

6. RESPONSE TO REMARKS

Examiner reiterates her rejections of the Claims using Breed and Thompson, as described above.

On p 10, middle of paragraph, re the remark that "[b]oth the crash signal AND the safing signal must indicate the occurrence of a crash event", is clearly disclosed in Breed via the accelerometers and acoustic sensors.

On pp 10-12, re arguments that Breed fails to disclose acoustic sensing, it is maintained that Breed's acoustic sensors "provide a safing signal having a characteristic indicative of the sensed crash event", as recited in Claims 1, 10, 14 and 22, and "provid[e] a safing signal in response to the sensed acoustic waves during the...crash...", (emphasis added) as recited in Claim 17. The sensors indicate the *real-time position of the occupant during a crash event*, which meets the emphasized (underlined) limitations. While it is clear that the sensors determine the position of the occupant, it is equally clear that the position of the occupant is, in turn, determined by a crash event via the type, and velocity, of motion towards/away from the sensors. The sensors generate these crash-indicative signals to the controller, which can then actuate the airbags.

Therefore, Examiner asserts that Breed, and Thompson, disclose the recited limitations.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

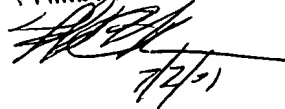
6. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at telephone number (703) 305-0232. The examiner can normally be reached between 9-530 pm, Monday-Friday. If she can't be reached, her supervisor, Ms. Judy Swann, can be reached on (703) 306-4115.

Our fax number is (703) 308-2571. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer assistance at (703) 306-5771.

Ms. Lee S. Lum  
Examiner  
6/25/01

FRANK VANAMAN  
PRIMARY EXAMINER



7/2/01